[0072] Display device **605** utilized with computer system **690** may be a liquid crystal device, cathode ray tube, or other display device suitable for creating graphic images and alphanumeric characters recognizable to the user. In one embodiment, display device **605** is a flat panel display. In another embodiment, display device **605** incorporates electronic paper/ink technology.

[0073] Cursor control device **607** allows the computer user to dynamically signal the two-dimensional movement of a visible symbol (pointer) on a display screen of display device **605**. Many implementations of the cursor control device are known in the art including a trackball, mouse, joystick or special keys on alphanumeric input device **606** capable of signaling movement of a given direction or manner of displacement. It is to be appreciated that the cursor control **607** also may be directed and/or activated via input from the keyboard using special keys and key sequence commands. Alternatively, the cursor may be directed and/or activated via input from a number of specially adapted cursor directing devices.

[0074] In accordance with the present embodiment of the present invention, computer system **690** of **FIG. 7** also includes a flip interface **500**. In the present embodiment, flip interface **500** is coupled to cursor control **607** as shown in **FIG. 5**. That is, flip interface **500** can be coupled to a peripheral device, such as a mouse, that is coupled to computer system **690**. In another embodiment, flip interface **500** is coupled directly to computer system **690**; specifically, flip interface **500** is coupled to bus **600**. Thus, movement of flip interface **500** can be forwarded to processor **601** and translated into a change to a displayed image.

[0075] Continuing with reference to **FIG. 7**, flip interface **500** is for controlling and changing the images displayed on display device **605**, for selecting an application, and for moving within an application, and can also fulfill other functions of a user interface. Flip interface **500** can replace or be used in combination with alpha-numeric input device **606**. Similarly, flip interface can replace or be used in combination with cursor control **607**.

[0076] Method Implementing A Flip-Style Interface

[0077] **FIG. 8** is a flowchart of the steps in a process **800** for controlling an onscreen display using a flip interface **500** **(FIGS. 4A through 7)** in accordance with one embodiment of the present invention. Aspects of process **800** are implemented as computer-readable program instructions stored in a memory unit (e.g., ROM non-volatile **103** or **603** of **FIGS. 6 and 7**, respectively) and executed by a processor (e.g., processor **101** or **601** of **FIGS. 6 and 7**, respectively).

[0078] In step **810** of **FIG. 8**, an image is generated and displayed on a display device (e.g., display device **105** or **605** of **FIGS. 6 and 7**, respectively). As described above, the display technology of display device **105** or **605** can be of a conventional technology currently in use, or another type of display technology such as electronic paper and electronic ink. The image displayed on display device **105** or **605** can be any of the different types of images that can be displayed. That is, the image may be the familiar desktop display (e.g., showing icons representing different applications), a page or pages from within a word processing document, spreadsheet, calendar, or address book, a Web page, etc.

[0079] In step **820** of **FIG. 8**, with reference also to **FIGS. 4A and 5**, movement of flip interface **500** is detected. In the present embodiment, movement is detected by detecting the separation and/or bending of leaves **540** and **550**. In one embodiment, a contact switch (e.g., pads **520** and **530**) is used to determine when two adjacent leaves are separated. In another embodiment, a strain gauge, accelerometer, optical sensor, or another such instrument is used to detect, directly or indirectly, when leaves **540** and **550** are bent. In yet another embodiment, the amount of deflection can be measured. In another embodiment, the rate at which leaves **540** and **550** are separated and/or bent is measured. In still another embodiment, the direction (front to back, or vice versa) in which leaves **540** and **550** are separated and/or bent is monitored.

[0080] In step **830** of **FIG. 8**, with reference as well to **FIGS. 4A and 5**, the movement of flip interface **500** is translated into a change in the on-screen display. As described above, in various embodiments, the rate at which the leaves are moved, the order in which they are moved (e.g., front to back, or vice versa), and the amount of deflection imparted to the leaves are used to control various aspects of the display, such as the number of pages skipped between pages displayed in an electronic document, or how quickly the display image is changed. In one embodiment, the amount of time that the leaves are separated provides an indication that, for example, a page in an electronic document should be displayed.

[0081] In summary, the present invention provides a user interface to control the on-screen display in computer systems and other like devices. The present invention can be used with the different types of display technologies, including developing technologies such as electronic paper and electronic ink. The present invention also provides a friendly user interface for portable (e.g., handheld) devices that can be extended to other (peripheral) devices such as a computer system mouse.

[0082] The preferred embodiment of the present invention, flip-style user interface, is thus described. While the present invention has been described in particular embodiments, it should be appreciated that the present invention should not be construed as limited by such embodiments, but rather construed according to the claims below.

What is claimed is:

1. A computer system comprising:

a bus;

a processor coupled to said bus;

a display device coupled to said bus, said display device operable to provide a display; and

a user interface coupled to said bus and for controlling said display, said user interface comprising a plurality of flexible layers coupled along an edge in a stack;

wherein movement of one or more of said flexible layers causes said display to change in a prescribed manner.

2. The computer system of claim 1 wherein said movement comprises separation of at least a portion of a first flexible layer from a second flexible layer.

3. The computer system of claim 2 wherein a first conducting pad on a surface of said first flexible layer is in electrical contact with a second conducting pad on a facing surface of said second flexible layer, wherein said separation